## CLAIMS

1. A semiconductor integrated circuit, comprising

an amplifier circuit of AM broadcast signals having a first P channel MOSFET for amplifying AM broadcast signals and a second P channel MOSFET cascade-connected to the first P channel MOSFET; and a CMOS digital circuit.

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2. A semiconductor integrated circuit, comprising:

an amplifier circuit of AM broadcast signals having a first P channel MOSFET for amplifying AM broadcast signals and a second P channel MOSFET cascade-connected to the first P channel MOSFET; and

a CMOS digital circuit; wherein

the first P channel MOSFET, the second P channel MOSFET and the CMOS digital circuit are formed on the same circuit board by a CMOS process.

3. A semiconductor integrated circuit, comprising:

an amplifier circuit of AM broadcast signals

25 having a first P channel MOSFET for amplifying AM

broadcast signals and a bias circuit for giving a specific bias to the first P channel MOSFET; and

a CMOS digital circuit; wherein

the first P channel MOSFET, the bias circuit and the CMOS digital circuit are formed on the same circuit board by the CMOS process.

4. A semiconductor integrated circuit, comprising:

an amplifier circuit of AM broadcast signals having a first P channel MOSFET for amplifying AM broadcast signals, a second P channel MOSFET cascade-connected to the first P channel MOSFET and a bias circuit for giving a specific bias to the first P channel MOSFET;

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a CMOS digital circuit, wherein

the first P channel MOSFET, the second P channel MOSFET, the bias circuit and the CMOS digital circuit are formed on the same circuit board by the CMOS process.

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5. The semiconductor integrated circuit according to claim 1, 2, or 4, which has an AGC circuit for controlling the amplification degree of the second P channel MOSFET.

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6. The semiconductor integrated circuit according to claim 2, 3, 4, or 5, wherein

the bias circuit has the third MOSFET which together with the first P channel MOSFET constitutes a current mirror circuit.

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7. The semiconductor integrated circuit according to claim 6, wherein

the bias circuit has the third MOSFET which together with the first P channel MOSFET constitutes a current mirror circuit, and makes the ratio of the channel width of the third MOSFET to the channel width of the first P channel MOSFET 1 : k ( $k \ge 1$ ).

15 8. The semiconductor integrated circuit according to claim 6 or 7, wherein

the bias circuit is constituted in such a way that one end of either the drain or the source is connected to a power-supply voltage, the other end of either the drain or the source is connected to the constant-current power supply, and the gate is connected to the constant-current power supply.

9. A method of manufacturing a semiconductor integrated circuit which forms a first P channel MOSFET

for amplifying AM broadcast signals and a second P channel MOSFET cascade-connected to the first P channel MOSFET, and a CMOS digital circuit on the same circuit board by the CMOS process.

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10. The method of manufacturing a semiconductor integrated circuit, wherein

an AGC circuit for controlling the amplification degree of the second P channel MOSFET is provided.

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11. The method of manufacturing a semiconductor integrated circuit according to claim 9, which forms the third MOSFET and the second P channel MOSFET constituting a current mirror circuit, and which makes the ratio of the channel width of the third MOSFET to the channel width of the first P channel MOSFET 1 :  $k (k \ge 1)$ .